

REMARKS

Applicant respectfully requests reconsideration of the above-referenced U.S. Patent application as amended herein. Claim 2 has been cancelled without prejudice. Claim 1 has been amended to more clearly recite the claimed invention. Claims 3, 8, and 15 have been amended to correct lingering informalities. Thus, claims 1 and 3-20 are pending.

Claim Rejection - 35 U.S.C. § 102

Claims 1, 4, 6, 9, and 10 were rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 5,953,314 issued to Ganmukhi, et al. (*Ganmukhi*). For at least the reasons set forth below, Applicant submits that claims 1, 4, 6, 9, and 10 are not anticipated by *Ganmukhi*.

The Manual of Patent Examining Procedure ("MPEP"), in § 2131, states:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegual Bros. V. Union Oil Co. California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 869 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Thus, under 35 U.S.C. § 102, a claim is anticipated *only if* each and every element of the claim is found in the cited reference and the cited reference must show the invention in as complete detail as contained in the claim.

Independent claim 1, as amended, recites:

**a logical network interface to provide multiple logical communication ports, the logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may communicate with any of the plurality of network devices if the other of the first and second control units fails.**

(Emphasis added). Claims 4, 6, 9, and 10 depend from claim 1 and, therefore, include the limitation of a "logical network interface to provide multiple logical communication ports."

The Office action cites *Ganmukhi* as teaching the above-stated claim limitations in figure 1 and columns 1 and 2. Figure 1 shows a telecommunications switch having a bank of I/O cards 24, control processes 12 and 14, and switch fabric 16. Applicant respectfully submits, however, that the bank of I/O cards 24 and switch fabric 16 are **physical, rather than logical**, implementations of network elements. Importantly, Applicant respectfully submits that figure 1 and columns 1 and 2 do not disclose a **"logical network interface to provide multiple logical communication ports."** Thus, Applicant respectfully submits that figure 1 and columns 1 and 2 cannot disclose a "logical network interface ... communicatively coupled between the first interface and the first and second control units," as claimed by Applicant. Therefore, for at least the above-stated reasons, Applicant respectfully submits that *Ganmukhi* does not anticipate claim 1.

For at least the reason that dependent claims include the limitations of the claims from which they depend, Applicant respectfully submits that claims 4, 6, 9, and 10 are not anticipated by *Ganmukhi*.

Claim Rejections - 35 U.S.C. § 103(a)

Claims 2, 3, and 12-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ganmukhi* in view of U.S. Patent No. 5,802,047 issued to Kinoshita (*Kinoshita*). Claim 2 has been cancelled without prejudice and, therefore, the rejection of claim 2 is moot. For at least the reasons set forth below, Applicant submits that claims 3 and 12-19 are not rendered obvious by *Ganmukhi* in view of *Kinoshita*.

The Manual of Patent Examining Procedure ("MPEP"), in § 706.02(j), states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

(Emphasis added). Thus, the MPEP and applicable case law require that the Office action establish that the combined references teach or suggest all of the claim limitations of rejected claims to establish a *prima facie* case of obviousness under 35 U.S.C. § 103.

Claim 3 refines the "logical network interface to provide multiple logical communication ports," recited in claim 1 by further reciting:

...wherein the logical network interface comprises two logical communication ports for each one of the plurality of physical communication ports.

Thus, claim 3 recites "a logical network interface to provide two logical communication ports for each one of the plurality of physical communication ports."

The Office action states that *Kinoshita* may be cited for teaching the above-quoted claim limitations at column 2, lines 31-50, wherein *Kinoshita* states "a plurality of logic ports corresponding to the physical Ethernet ports." (Emphasis added). Applicant respectfully submits that a mere correspondence between logic ports and Ethernet ports is distinguishable from "a logical network interface to provide two logical communication ports for each one of the plurality of physical communication ports." First, Applicant respectfully submits that the cited passage says nothing about "a logical network interface." Therefore, Applicant respectfully submits that the cited passage cannot disclose "a logical network interface" that comprises "two logical communication ports for each one of the plurality of physical

communication ports," as recited in claim 3. Therefore, Applicant respectfully submits that claim 3 is not rendered obvious by *Ganmukhi* in view of *Kinoshita*.

Independent claim 12 recites:

**representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports** such that either one of a first control unit and a second control unit communicatively coupled to the physical data communication ports can communicate with any of a plurality of external devices communicatively coupled to the physical data communication ports if the other of the first and second control units fails.

(Emphasis added). Independent claim 18 similarly recites, **"represent[ing] a plurality of physical data communication ports as a corresponding plurality of logical data communications ports."** Regarding the claim limitation of **"representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports,"** the Office action directs the Applicant's attention to column 2, lines 31-50 of *Kinoshita*. Specifically, the Office action cites lines 31-50 of *Kinoshita* for the proposition that "each physical port comprises a plurality of logic ports.

Applicant respectfully disagrees that the cited passage teaches the proposition for which it is cited. Specifically, Applicant respectfully submits that *Kinoshita* merely states, "a plurality of logic ports *corresponding* to the physical Ethernet ports." (column 2, lines 34-35, emphasis added). Applicant respectfully submits that a mere correspondence between logic ports and physical Ethernet ports fails to disclose the above-cited claim limitation. In particular, *Kinoshita* does not teach or suggest **"representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports,"** as recited in claim 12. Instead, *Kinoshita* merely states that **"the buffers 22 and 23 for the switch-router communication are grasped as logic interfaces by the CPU 21 for the router and as logic ports by a CPU 31 for a**

switch." Column 3, lines 47-51, emphasis added. Thus, *Kinoshita* merely discloses two buffers that provide logic ports to a CPU.

Importantly, *Kinoshita* fails to disclose "representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports," as claimed by Applicant. As shown above, *Ganmukhi* fails to disclose "multiple logical communication ports." Thus, *Ganmukhi* cannot cure the deficiencies of *Kinoshita*. Applicant, therefore, respectfully submits that claims 12 and 18 are not rendered obvious by *Ganmukhi* in view of *Kinoshita*.

Claims 13-17 depend from claim 12 and claims 19 and 20 depend from claim 18. For at least the reason that dependent claims include the limitations of the claims from which they depend, Applicant respectfully submits that claims 13-17, 19, and 20 are not rendered obvious by *Ganmukhi* in view of *Kinoshita*.

Dependent claims 5, 7, and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ganmukhi*. For at least the reasons set forth below, Applicant submits that claims 5, 7 and 8 are not rendered obvious by *Ganmukhi*.

Claims 5, 7, and 8 depend directly or indirectly from claim 1. As discussed above, claim 1 recites a "logical network interface to provide multiple logical communication ports." Also, as shown above, *Ganmukhi* does not teach or suggest a "logical network interface to provide multiple logical communication ports," as claimed by Applicant. Thus, Applicant respectfully submits that claims 5, 7, and 8 are not rendered obvious by *Ganmukhi* for at least the reason that *Ganmukhi* does not teach or suggest a "logical network interface to provide multiple logical communication ports," as recited in claim 1.

Dependent claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ganmukhi* in view of U.S. Patent Number 5,481,673 issued to Michelson (*Michelson*). For at

least the reasons set forth below, Applicant submits that claim 11 is not rendered obvious by *Ganmukhi* in view of *Michelson*.

*Michelson* is cited as teaching "the availability or unavailability of particular routes ... [based on information] stored in routing tables." Whether or not *Michelson* discloses "the availability or unavailability of particular routes ... [based on information] stored in routing tables," it does not teach or suggest a "logical network interface to provide multiple logical communication ports," as claimed by Applicant. *Michelson*, therefore, does not cure the deficiencies of *Ganmukhi*. Thus, Applicant respectfully submits that no combination of *Ganmukhi* and *Michelson* renders claim 11 obvious.

#### Conclusion

For at least the foregoing reasons, Applicant submits that the rejections have been overcome. Therefore, claims 1, and 3-20 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,  
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Date: June 23, 2003

  
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Application No.: 09/608,773  
Atty. Docket No.: 42390.P8723

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Examiner: D. Odland  
Art Unit: 2662